FIG. 1

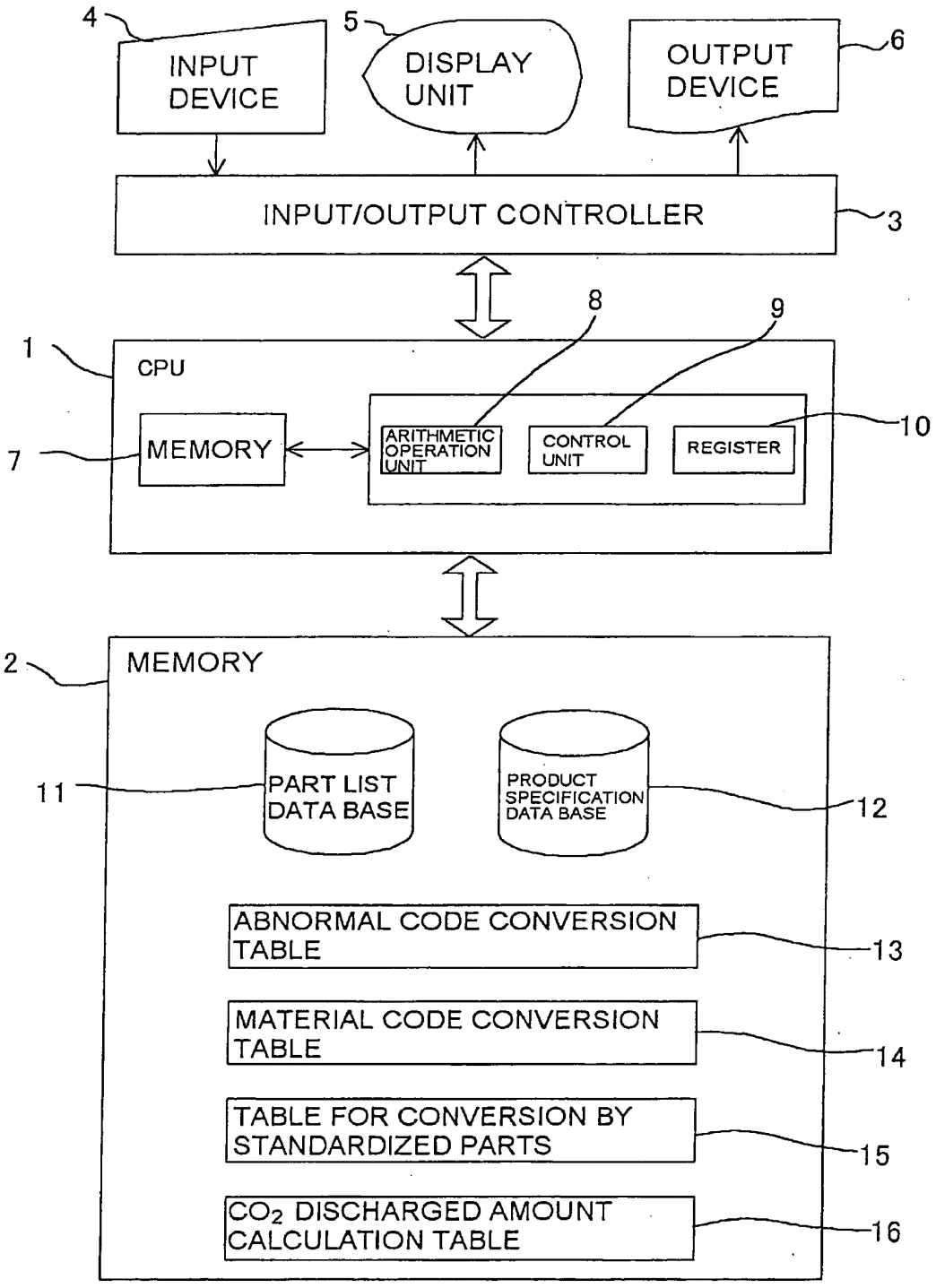

4
INPUT DEVICE
5
DISPLAY UNIT
OUTPUT DEVICE
6
INPUT/OUTPUT CONTROLLER
3
8
9
1
CPU
MEMORY
7
ARITHMETIC OPERATION UNIT
CONTROL UNIT
REGISTER
10
2
MEMORY
11
PART LIST DATA BASE
PRODUCT SPECIFICATION DATA BASE
12
ABNORMAL CODE CONVERSION TABLE
13
MATERIAL CODE CONVERSION TABLE
14
TABLE FOR CONVERSION BY STANDARDIZED PARTS
15
CO_2 DISCHARGED AMOUNT CALCULATION TABLE
16

FIG. 2

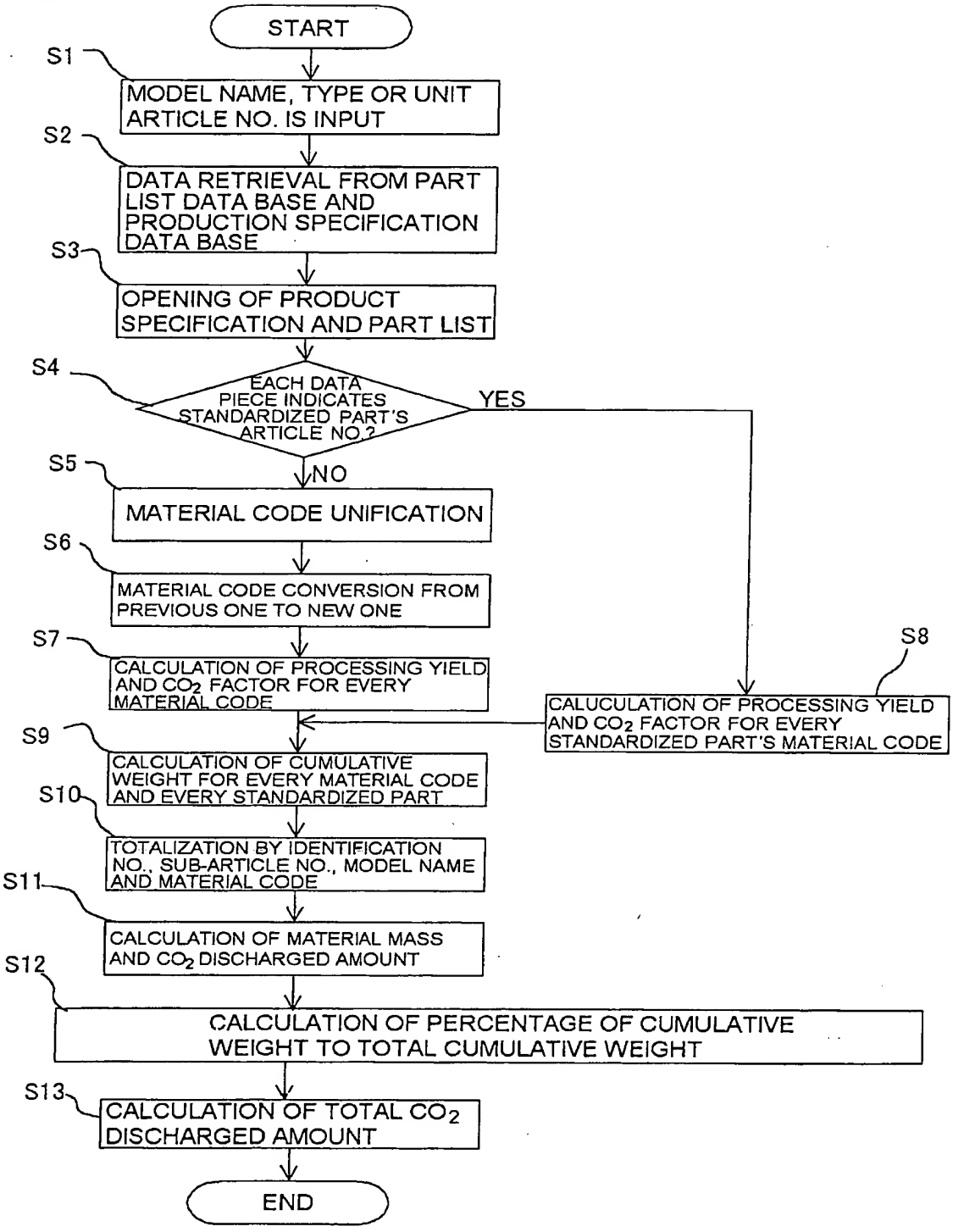

START
S1
MODEL NAME, TYPE OR UNIT ARTICLE NO. IS INPUT
S2
DATA RETRIEVAL FROM PART LIST DATA BASE AND PRODUCTION SPECIFICATION DATA BASE
S3
OPENING OF PRODUCT SPECIFICATION AND PART LIST
S4
EACH DATA PIECE INDICATES STANDARDIZED PART'S ARTICLE NO.?
YES
NO
S5
MATERIAL CODE UNIFICATION
S6
MATERIAL CODE CONVERSION FROM PREVIOUS ONE TO NEW ONE
S7
CALCULATION OF PROCESSING YIELD AND CO_2 FACTOR FOR EVERY MATERIAL CODE
S8
CALUCULATION OF PROCESSING YIELD AND CO_2 FACTOR FOR EVERY STANDARDIZED PART'S MATERIAL CODE
S9
CALCULATION OF CUMULATIVE WEIGHT FOR EVERY MATERIAL CODE AND EVERY STANDARDIZED PART
S10
TOTALIZATION BY IDENTIFICATION NO., SUB-ARTICLE NO., MODEL NAME AND MATERIAL CODE
S11
CALCULATION OF MATERIAL MASS AND CO_2 DISCHARGED AMOUNT
S12
CALCULATION OF PERCENTAGE OF CUMULATIVE WEIGHT TO TOTAL CUMULATIVE WEIGHT
S13
CALCULATION OF TOTAL CO_2 DISCHARGED AMOUNT
END

FIG. 3

(a) A LIST BEFORE EXTRACTION OF STANDARDIZED PART'S ARTICLE NUMBERS

TECHNICAL CONFIGURATION TEMP

IDENTIFICATION NO.	SUB-ARTICLE NO.	MODEL NAME	MATERIAL CODE	PARENT ARTICLE NO.	COMPONENT NO.	QUANTITY	WEIGHT	CUMULATIVE WEIGHT	TOTAL WEIGHT
10298	1	PC200	SS41P	A	a	20	100		20000
10298	1	PC200	9 SS41B	A	b	30	80		20000
10298	1	PC200	9SS41P	A	c	25	300		20000
10298	1	PC200	9 SS400B	A	d	40	80		20000
10298	1	PC200	9SS40B	A	e	15	120		20000
10298	1	PC200	XXXXXXXX	01010XXXXX	A	20	60		20000
10298	1	PC300	SS41P	A	a	30	20		30000
10298	1	PC200	YYYYYYYY	01020XXXXX	B	25	40		20000
10298	1	PC200	ZZZZZZZZ	01030XXXXX	C	10	90		20000
10298	1	PC400	JISSS41P	A	a	5	12		40000
10298	2	PC400	9 SS41P	B	a	5	10		40000
10298	3	PC400	SS400P	C	a	5	15		40000
10298	4	PC400	SS41P	D	a	5	20		40000

(b) A LIST BEFORE MATERIAL CODE UNIFICATION

TECHNICAL CONFIGURATION TEMP

IDENTIFICATION NO.	SUB-ARTICLE NO.	MODEL NAME	MATERIAL CODE	PARENT ARTICLE NO.	COMPONENT NO.	QUANTITY	WEIGHT	CUMULATIVE WEIGHT	TOTAL WEIGHT
10298	1	PC200	SS41P	A	a	20	100		20000
10298	1	PC200	9 SS41B	A	b	30	80		20000
10298	1	PC200	9SS41P	A	c	25	300		20000
10298	1	PC200	9 SS400B	A	d	40	80		20000
10298	1	PC200	9SS40B	A	e	15	120		20000
10298	1	PC300	SS41P	A	a	30	20		30000
10298	1	PC400	JISSS41P	A	a	5	12		40000
10298	2	PC400	9 SS41P	B	a	5	10		40000
10298	3	PC400	SS400P	C	a	5	15		40000
10298	4	PC400	SS41P	D	a	5	20		40000

A

(c) STANDARDIZED PART'S ARTICLE NUMBERS

TECHNICAL CONFIGURATION TEMP

IDENTIFICATION NO.	SUB-ARTICLE NO.	MODEL NAME	MATERIAL CODE	PARENT ARTICLE NO.	COMPONENT NO.	QUANTITY	WEIGHT	CUMULATIVE WEIGHT	TOTAL WEIGHT
10298	1	PC200	XXXXXXXX	01010XXXXX	A	20	60		20000
10298	1	PC200	YYYYYYYY	01020XXXXX	B	25	40		20000
10298	1	PC200	ZZZZZZZZ	01030XXXXX	C	10	90		20000

B

FIG. 4

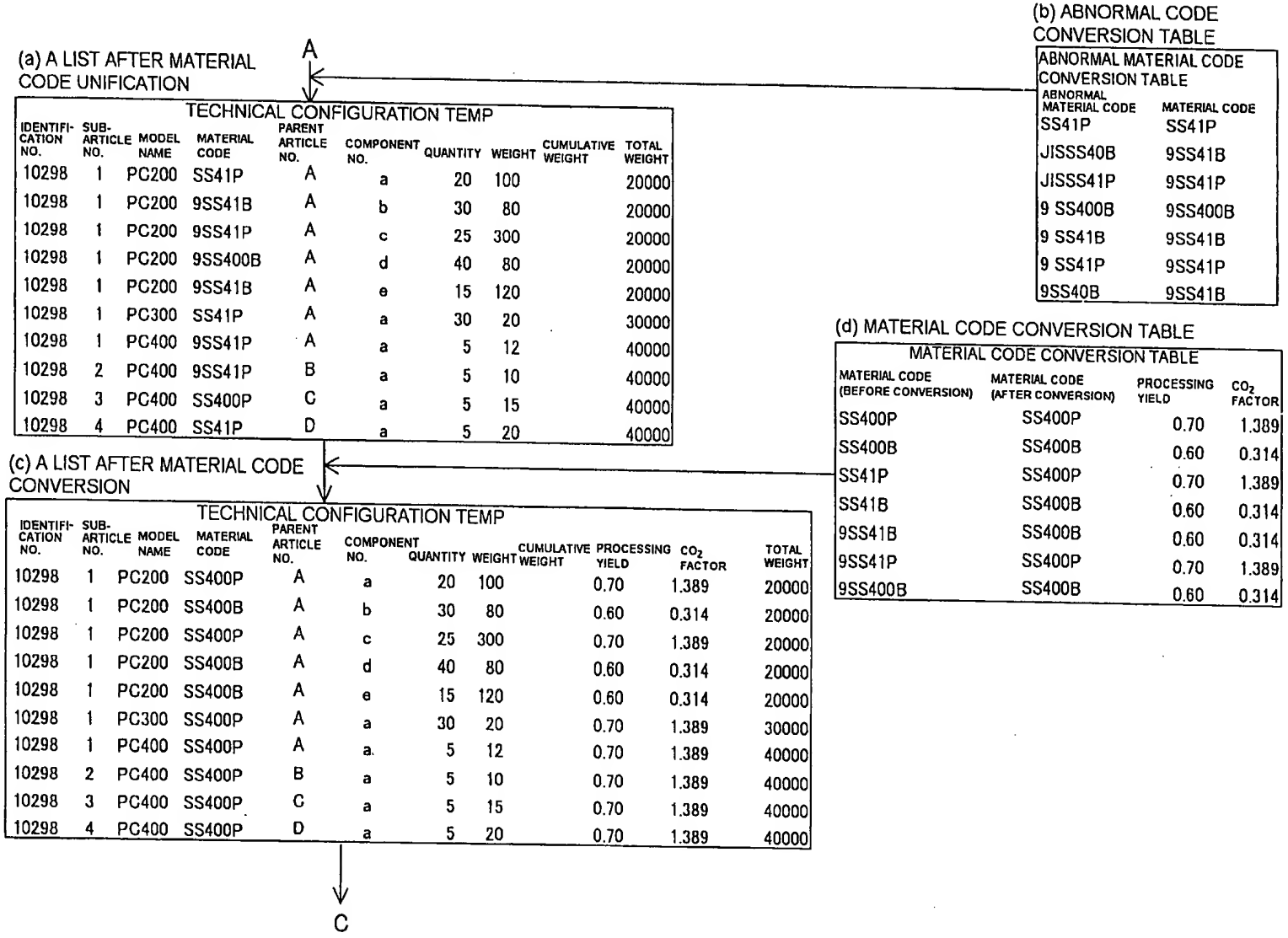

(a) A LIST AFTER MATERIAL CODE UNIFICATION
A
TECHNICAL CONFIGURATION TEMP
IDENTIFICATION NO. | SUB-ARTICLE NO. | MODEL NAME | MATERIAL CODE | PARENT ARTICLE NO. | COMPONENT NO. | QUANTITY | WEIGHT | CUMULATIVE WEIGHT | TOTAL WEIGHT
10298 | 1 | PC200 | SS41P | A | a | 20 | 100 | | 20000
10298 | 1 | PC200 | 9SS41B | A | b | 30 | 80 | | 20000
10298 | 1 | PC200 | 9SS41P | A | c | 25 | 300 | | 20000
10298 | 1 | PC200 | 9SS400B | A | d | 40 | 80 | | 20000
10298 | 1 | PC200 | 9SS41B | A | e | 15 | 120 | | 20000
10298 | 1 | PC300 | SS41P | A | a | 30 | 20 | | 30000
10298 | 1 | PC400 | 9SS41P | A | a | 5 | 12 | | 40000
10298 | 2 | PC400 | 9SS41P | B | a | 5 | 10 | | 40000
10298 | 3 | PC400 | SS400P | C | a | 5 | 15 | | 40000
10298 | 4 | PC400 | SS41P | D | a | 5 | 20 | | 40000
(b) ABNORMAL CODE CONVERSION TABLE
ABNORMAL MATERIAL CODE CONVERSION TABLE
ABNORMAL MATERIAL CODE | MATERIAL CODE
SS41P | SS41P
JISSS40B | 9SS41B
JISSS41P | 9SS41P
9 SS400B | 9SS400B
9 SS41B | 9SS41B
9 SS41P | 9SS41P
9SS40B | 9SS41B
(d) MATERIAL CODE CONVERSION TABLE
MATERIAL CODE CONVERSION TABLE
MATERIAL CODE (BEFORE CONVERSION) | MATERIAL CODE (AFTER CONVERSION) | PROCESSING YIELD | CO_2 FACTOR
SS400P | SS400P | 0.70 | 1.389
SS400B | SS400B | 0.60 | 0.314
SS41P | SS400P | 0.70 | 1.389
SS41B | SS400B | 0.60 | 0.314
9SS41B | SS400B | 0.60 | 0.314
9SS41P | SS400P | 0.70 | 1.389
9SS400B | SS400B | 0.60 | 0.314
(c) A LIST AFTER MATERIAL CODE CONVERSION
TECHNICAL CONFIGURATION TEMP
IDENTIFICATION NO. | SUB-ARTICLE NO. | MODEL NAME | MATERIAL CODE | PARENT ARTICLE NO. | COMPONENT NO. | QUANTITY | WEIGHT | CUMULATIVE WEIGHT | PROCESSING YIELD | CO_2 FACTOR | TOTAL WEIGHT
10298 | 1 | PC200 | SS400P | A | a | 20 | 100 | | 0.70 | 1.389 | 20000
10298 | 1 | PC200 | SS400B | A | b | 30 | 80 | | 0.60 | 0.314 | 20000
10298 | 1 | PC200 | SS400P | A | c | 25 | 300 | | 0.70 | 1.389 | 20000
10298 | 1 | PC200 | SS400B | A | d | 40 | 80 | | 0.60 | 0.314 | 20000
10298 | 1 | PC200 | SS400B | A | e | 15 | 120 | | 0.60 | 0.314 | 20000
10298 | 1 | PC300 | SS400P | A | a | 30 | 20 | | 0.70 | 1.389 | 30000
10298 | 1 | PC400 | SS400P | A | a | 5 | 12 | | 0.70 | 1.389 | 40000
10298 | 2 | PC400 | SS400P | B | a | 5 | 10 | | 0.70 | 1.389 | 40000
10298 | 3 | PC400 | SS400P | C | a | 5 | 15 | | 0.70 | 1.389 | 40000
10298 | 4 | PC400 | SS400P | D | a | 5 | 20 | | 0.70 | 1.389 | 40000
C

FIG. 5

(a) CALCULATION OF PROCESSING YIELDS AND CO_2 FACTORS ASSOCIATED WITH STANDARDIZED PART'S ARTICLE NOS.

B

TECHNICAL CONFIGURATION TEMP

IDENTIFICATION NO.	SUB-ARTICLE NO.	MODEL NAME	MATERIAL CODE	PARENT ARTICLE NO.	COMPONENT NO.	QUANTITY	WEIGHT	CUMULATIVE WEIGHT	PROCESSING YIELD	CO_2 FACTOR	TOTAL WEIGHT
10298	1	PC200	01010	01010XXXXX	A	20	60		0.57	0.546	20000
10298	1	PC200	01020	01020XXXXX	B	25	40		0.70	1.389	20000
10298	1	PC200	01030	01030XXXXX	C	10	90		0.60	0.314	20000

(c) STANDARDIZED PART CODE CONVERSION TABLE

STANDARDIZED PART CODE CONVERSION TABLE

STANDARDIZED PART'S ARTICLE NO.	PROCESSING YIELD	CO_2 FACTOR
01010XXXXX	0.57	0.546
01020YYYYY	0.70	1.389
01030ZZZZZ	0.60	0.314

C

(b) CALCULATION OF CUMULATIVE WEIGHT

TECHNICAL CONFIGURATION TEMP

IDENTIFICATION NO.	SUB-ARTICLE NO.	MODEL NAME	MATERIAL CODE	PARENT ARTICLE NO.	COMPONENT NO.	QUANTITY	WEIGHT	CUMULATIVE WEIGHT	PROCESSING YIELD	CO_2 FACTOR	TOTAL WEIGHT
10298	1	PC200	SS400P	A	a	20	100	2000	0.70	1.389	20000
10298	1	PC200	SS400B	A	b	30	80	2400	0.60	0.314	20000
10298	1	PC200	SS400P	A	c	25	300	7500	0.70	1.389	20000
10298	1	PC200	SS400B	A	d	40	80	3200	0.60	0.314	20000
10298	1	PC200	SS400B	A	e	15	120	1800	0.60	0.314	20000
10298	1	PC300	SS400P	A	a	30	20	600	0.70	1.389	30000
10298	1	PC400	SS400P	A	a	5	12	60	0.70	1.389	40000
10298	2	PC400	SS400P	B	a	5	15	75	0.70	1.389	40000
10298	3	PC400	SS400P	C	a	5	10	50	0.70	1.389	40000
10298	4	PC400	SS400P	D	a	5	20	100	0.70	1.389	40000
10298	1	PC200	01010	01010XXXXX	A	20	60	1200	0.57	0.546	20000
10298	1	PC200	01020	01020XXXXX	B	25	40	1000	0.70	1.389	20000
10298	1	PC200	01030	01030XXXXX	C	10	90	900	0.60	0.314	20000

D

FIG. 6

D

(a) TOTALIZATION BY IDENTIFICATION NO., SUB-ARTICLE NO., MADEL NAME AND MATERIAL CODE

TECHNICAL CONFIGURATION TEMP

IDENTIFICATION NO.	SUB-ARTICLE NO.	MODEL NAME	MATERIAL CODE	PARENT ARTICLE NO.	CUMULATIVE WEIGHT	PROCESSING YIELD	CO_2 FACTOR	TOTAL WEIGHT
10298	1	PC200	SS400P	A	9500	0.70	1.389	20000
10298	1	PC200	SS400B	A	5600	0.60	0.314	20000
10298	1	PC200	SS400B	A	1800	0.60	0.314	20000
10298	1	PC300	SS400P	A	600	0.70	1.389	30000
10298	1	PC200	01010	01010XXXXX	1200	0.57	0.546	20000
10298	1	PC200	01020	01020XXXXX	1000	0.70	1.389	20000
10298	1	PC200	01030	01030XXXXX	900	0.60	0.314	20000
10298	1	PC400	SS400P	A	60	0.70	1.389	40000
10298	2	PC400	SS400P	B	75	0.70	1.389	40000
10298	3	PC400	SS400P	C	50	0.70	1.389	40000
10298	4	PC400	SS400P	D	100	0.70	1.389	40000

(b) CALCULATION OF MATERIAL MASS AND CO_2 DISCHARGED AMOUNT

TECHNICAL CONFIGURATION TEMP

IDENTIFICATION NO.	SUB-ARTICLE NO.	MODEL NAME	MATERIAL CODE	PARENT ARTICLE NO.	CUMULATIVE WEIGHT	PROCESSING YIELD	MATERIAL MASS	CO_2 FACTOR	CO_2 DISCHARGED AMOUNT	TOTAL WEIGHT
10298	1	PC200	SS400P	A	9500	0.70	13571	1.389	18850	20000
10298	1	PC200	SS400B	A	5600	0.60	1500	0.314	2931	20000
10298	1	PC200	9SS400B	A	1800	0.60	3000	0.314	942	20000
10298	1	PC300	SS400P	A	600	0.70	857	1.389	1190	30000
10298	1	PC200	01010	01010XXXXX	1200	0.57	2105	0.546	1149	20000
10298	1	PC200	01020	01020XXXXX	1000	0.70	429	1.389	596	20000
10298	1	PC200	01030	01030XXXXX	900	0.60	1429	0.314	449	20000
10298	1	PC400	SS400P	A	60	0.70	57	1.389	79	40000
10298	2	PC400	SS400P	B	75	0.70	107	1.389	149	40000
10298	3	PC400	SS400P	C	50	0.70	71	1.389	99	40000
10298	4	PC400	SS400P	D	100	0.70	143	1.389	199	40000

(c) CALCULATION OF PERCENTAGE

IDENTIFICATION NO.	SUB-ARTICLE NO.	MODEL NAME	MATERIAL CODE	PARENT ARTICLE NO.	CUMULATIVE WEIGHT	PER-CENT-AGE	PER-CENT-AGE	PROCESSING YIELD	MATERIAL MASS	CO_2 FACTOR	CO_2 DISCHARGED AMOUNT	TOTAL WEIGHT
10298	1	PC200	SS400P	A	9500	47.5	47.5	0.70	1214	1.389	18850	20000
10298	1	PC200	SS400B	A	5600	28.0	75.5	0.60	1500	0.314	2931	20000
10298	1	PC200	9SS400B	A	1800	9.0	84.5	0.60	1333	0.314	942	20000
10298	1	PC200	OTHER		1200	15.5	100.0				2194	20000
				TOTAL	20000	100.0					24917	

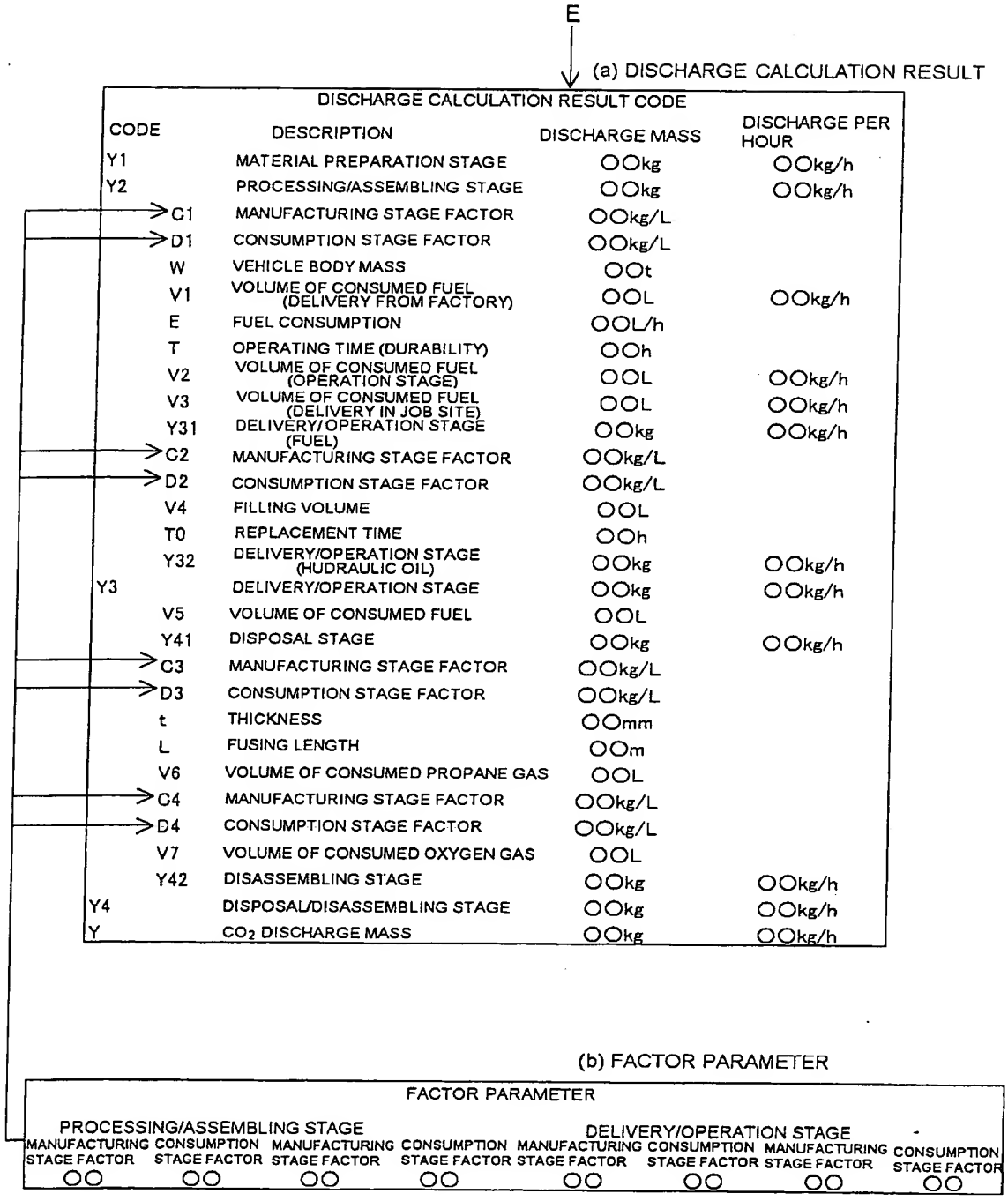
(d) TABLE FOR CALCULATION OF DISCHARGED AMOUNT BY MODEL NAME

TABLE FOR CALCULATION OF DISCHARGED AMOUNT BY MODEL NAME

IDENTIFICATION NO.	SUB-ARTICLE NO.	MODEL NAME	UNIT NO.	FUEL CONSUMPTION	OPERATING TIME	FILLING VOLUME	REPLACEMENT TIME	THICKNESS	FUSING LENGH
10298	1	PC200	A	OO	OO	OO	OO	OO	OO

E

FIG. 7


E
(a) DISCHARGE CALCULATION RESULT
DISCHARGE CALCULATION RESULT CODE
CODE
DESCRIPTION
DISCHARGE MASS
DISCHARGE PER HOUR
Y1 MATERIAL PREPARATION STAGE OOkg OOkg/h
Y2 PROCESSING/ASSEMBLING STAGE OOkg OOkg/h
C1 MANUFACTURING STAGE FACTOR OOkg/L
D1 CONSUMPTION STAGE FACTOR OOkg/L
W VEHICLE BODY MASS OOt
V1 VOLUME OF CONSUMED FUEL (DELIVERY FROM FACTORY) OOL OOkg/h
E FUEL CONSUMPTION OOL/h
T OPERATING TIME (DURABILITY) OOh
V2 VOLUME OF CONSUMED FUEL (OPERATION STAGE) OOL OOkg/h
V3 VOLUME OF CONSUMED FUEL (DELIVERY IN JOB SITE) OOL OOkg/h
Y31 DELIVERY/OPERATION STAGE (FUEL) OOkg OOkg/h
C2 MANUFACTURING STAGE FACTOR OOkg/L
D2 CONSUMPTION STAGE FACTOR OOkg/L
V4 FILLING VOLUME OOL
T0 REPLACEMENT TIME OOh
Y32 DELIVERY/OPERATION STAGE (HUDRAULIC OIL) OOkg OOkg/h
Y3 DELIVERY/OPERATION STAGE OOkg OOkg/h
V5 VOLUME OF CONSUMED FUEL OOL
Y41 DISPOSAL STAGE OOkg OOkg/h
C3 MANUFACTURING STAGE FACTOR OOkg/L
D3 CONSUMPTION STAGE FACTOR OOkg/L
t THICKNESS OOmm
L FUSING LENGTH OOm
V6 VOLUME OF CONSUMED PROPANE GAS OOL
C4 MANUFACTURING STAGE FACTOR OOkg/L
D4 CONSUMPTION STAGE FACTOR OOkg/L
V7 VOLUME OF CONSUMED OXYGEN GAS OOL
Y42 DISASSEMBLING STAGE OOkg OOkg/h
Y4 DISPOSAL/DISASSEMBLING STAGE OOkg OOkg/h
Y CO_2 DISCHARGE MASS OOkg OOkg/h
(b) FACTOR PARAMETER
FACTOR PARAMETER
PROCESSING/ASSEMBLING STAGE
DELIVERY/OPERATION STAGE
MANUFACTURING STAGE FACTOR
CONSUMPTION STAGE FACTOR
MANUFACTURING STAGE FACTOR
CONSUMPTION STAGE FACTOR
MANUFACTURING STAGE FACTOR
CONSUMPTION STAGE FACTOR
MANUFACTURING STAGE FACTOR
CONSUMPTION STAGE FACTOR
OO OO OO OO OO OO OO OO